

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
29 March 2001 (29.03.2001)

PCT

(10) International Publication Number
WO 01/21597 A1

(51) International Patent Classification⁷: C07D 239/94,
401/12, 403/12, A61K 31/517, A61P 35/00

[GB/GB]; Alderley Park, Macclesfield, Cheshire SK10
4TG (GB).

(21) International Application Number: PCT/GB00/03593

(74) Agent: BRYANT, Tracey; Astrazeneca, Global Intellectual Property, Alderley Park, P.O. Box 272, Mereside, Macclesfield, Cheshire SK10 4GR (GB).

(22) International Filing Date:

19 September 2000 (19.09.2000)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

9922171.5 21 September 1999 (21.09.1999) GB

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (for all designated States except MG, US): ASTRAZENECA AB [SE/SE]; S-151 85 Sodertalje (SE).

Published:

— With international search report.

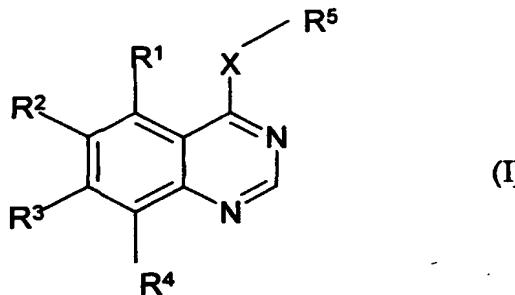
(71) Applicant (for MG only): ASTRAZENECA UK LIMITED [GB/GB]; 15 Stanhope Gate, London W1Y 6LN (GB).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(72) Inventors; and

(75) Inventors/Applicants (for US only): MORTLOCK, Andrew, Austen [GB/GB]; Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). KEEN, Nicholas, John

(54) Title: THERAPEUTIC QUINAZOLINE DERIVATIVES



(57) Abstract: A compound of formula (I) or a salt, ester, amide or prodrug thereof, where X is O, or S, S(O), S(O)₂ or NR⁶ where R⁶ is hydrogen of C₁₋₆alkyl; R⁵ is an optionally substituted 6-membered aromatic ring containing at least one nitrogen atom, and R¹, R², R³, R⁴ are independently selected from halogeno, cyano, nitro, C₁₋₃alkylsulphonyl, -N(OH)R⁷-(wherein R⁷ is hydrogen, or C₁₋₃alkyl), or R⁹X¹-(wherein X¹ represents a direct bond, -O-, -CH₂-, -OC(O), -C(O)-, -S-, -SO-, -SO₂-, -NR¹⁰C(O)-, -C(O)NR¹¹-, -SO₂NR¹²-, -NR¹³SO₂- or NR¹⁴-(wherein R¹⁰, R¹¹, R¹², R¹³ and R¹⁴ each independently represents hydrogen, C₁₋₃alkyl or C₁₋₃alkoxyC₂₋₃alkyl), and R⁹ is hydrogen, optionally substituted hydrocarbyl, optionally substituted heterocycl or optionally substituted alkoxy; provided that at least one of R² or R³ is other than hydrogen. These compounds inhibit aurora 2 kinase and are useful in the preparation of medicaments for the treatment of proliferative disease such as cancer.

WO 01/21597 A1